

LISTING OF THE CLAIMS

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Previously Presented) A trocar for performing a procedure on a patient, said trocar comprising:
 - a. a hollow cannula having a distal end and a proximal end;
 - b. a housing having a distal end attached to said proximal end of said cannula and a proximal end having a wall attached thereto, said wall having an aperture therethrough;
 - c. an instrument seal assembly disposed within said housing comprising a first substantially rigid ring, a second substantially rigid ring, and a plurality of separate semicircular seal segments compressed therebetween, each seal segment having a circumference greater than 180 degrees and being adapted to sufficiently seal against instruments positioned through the seal to maintain gas pressure in the abdominal cavity during endoscopic surgical procedures.

2. (Presently Amended) The trocar according to claim 1 wherein said plurality of layered elastomeric members form a ~~conical shape~~ non-planar shape.

3. (Original) The trocar according to claim 1 wherein said elastomeric members comprise a proximal flange portion, and an inwardly extending portion extending distally therefrom, wherein said proximal flange portions are disposed between and are abutting against said rings.

4. (Previously Presented) The trocar according to claim 1 wherein said seal assembly has an outer perimeter which is attached to a flotation means.
5. (Original) The trocar according to claim 1 wherein said seal assembly includes a plurality of protectors disposed proximal to said elastomeric seal.
6. (Original) The trocar according to claim 1 wherein said layered elastomeric members are disposed such that there is a substantially centrally located aperture in said seal assembly.
7. (Previously Cancelled)
8. (Previously Presented) The trocar according to claim 1 wherein said plurality of elastomeric layers have a non-planar shape prior to being assembled together.
9. (Previously Presented) A trocar for performing a procedure on a patient, said trocar comprising:
 - a. a hollow cannula having a distal end and a proximal end;
 - b. a housing having a distal end attached to said proximal end of said cannula and a proximal end having a wall attached thereto, said wall having an aperture therethrough;
 - c. an instrument seal assembly disposed within said housing comprising a first substantially rigid ring, a second substantially rigid ring, and a plurality layered elastomeric members compressed therebetween, the elastomeric members being arranged circumferentially about an aperture in an alternating over and under pattern to

cooperatively seal against instruments positioned through the aperture sufficiently to maintain gas pressure in the abdominal cavity during endoscopic surgical procedures; and

d. a plurality protrusions connecting the first and second rings and the elastomeric members.

10. (Presently Amended) The trocar according to claim 9 wherein said plurality of layered elastomeric members form a non-planar shape~~conical shape~~.

11. (Original) The trocar according to claim 10 wherein said elastomeric members comprise a proximal flange portion, and an inwardly extending portion extending distally therefrom, wherein said proximal flange portions are disposed between and are abutting against said rings.

12. (Previously Cancelled)

13. (Previously Cancelled)

14. (Previously Cancelled)

15. (Previously Cancelled)

16. (Previously Cancelled)

17. (Previously Presented) A trocar for performing a procedure on a patient, said trocar comprising:
- a. a hollow cannula having a distal end and a proximal end;
 - b. a housing having a distal end attached to said proximal end of said cannula and a proximal end having a wall attached thereto, said wall having an aperture therethrough;
 - c. a seal assembly disposed within said housing comprising a first substantially rigid ring, a second substantially rigid ring, and a plurality of semicircular elastomeric members compressed therebetween, the elastomeric members circumscribing an aperture in an interwoven pattern and cooperate to sufficiently seal against objects positioned within the aperture to maintain gas pressure in the abdominal cavity during endoscopic surgical procedures.
18. (Previously Cancelled)
19. (Original) The trocar according to claim 17 wherein said elastomeric members comprise a proximal flange portion, and an inwardly extending portion extending distally therefrom, wherein said proximal flange portions are disposed between and are abutting against said rings.
20. (Previously Cancelled)
21. (Previously Cancelled)
22. (Previously Cancelled)

23. (Previously Presented) The trocar according to claim 17 wherein said plurality of elastomeric layers are interwoven.
24. (Previously Presented) The trocar according to claim 17 wherein said plurality of elastomeric layers have a non-planar shape prior to be assembled together.
25. (Previously Presented) A seal for a surgical access device, the seal comprising
- a plurality of resilient seal segments circumscribing an aperture, each of the seal segments comprising a starting edge facing in the same circumferential direction and an ending edge facing in the opposite circumferential direction;
- wherein the seal segments are arranged about the aperture such that the starting edge of each seal segment overlaps and is positioned on top of the ending edge of the adjacent seal segment; and
- wherein the seal segments cooperate to provide a substantially gas-tight seal against objects positioned within the aperture.
26. (Previously Presented) The seal of claim 25, wherein the seal segments are semicircular.
27. (Previously Presented) The seal of claim 26, wherein the seal segments have a circumference between 180 to 270 degrees.

28. (Previously Presented) The seal of claim 25, wherein the seal further provides zero-closure.
29. (Previously Presented) The seal of claim 25, wherein the seal segments are arranged in non-planar shape.
30. (Previously Presented) A trocar comprising the seal of claim 25.
31. (Previously Presented) The seal of claim 25, wherein the seal comprises four seal segments.
32. (Previously Presented) The seal of claim 25, further comprising a first substantially rigid ring and a second substantially rigid ring, the seal segments being compressed therebetween.
33. (Previously Presented) The trocar of claim 1, further comprising a zero closure seal.